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Editorial

Electromagnetic and light scattering by nonspherical particles XV: Celebrating 150 years of Maxwell's electromagnetics

The 15th Electromagnetic and Light Scattering Conference (ELS-XV) was held in Leipzig, Germany from 21 to 26 of June 2015 (Fig. 1). This conference built on the great success of the previous meetings held in Amsterdam (1995) [1], Helsinki (1997) [2], New York City (1998) [3], Vigo (1999), Halifax (2000) [4], Gainesville (2002) [5], Bremen (2003) [6], Salobreña (2005) [7], St. Petersburg (2006) [8], Bodrum (2007) [9], Hatfield (2008) [10], Helsinki (2010) [11], Taormina (2011) [12], and Lille [13] as well as the workshops held in Bremen (1996, 1998) and Moscow (1997). As usual, the main objective of this conference was to bring together scientists, engineers, and PhD students studying various aspects of electromagnetic scattering and to provide a relaxed atmosphere for in-depth discussion of theory, measurements, and applications. Furthermore, ELS-XV supported the United Nations “Year of Light” and celebrated the 150th anniversary of Maxwell’s electromagnetics. Maxwell’s paper on “A Dynamical Theory of the Electromagnetic Field” [14] was published in 1865 and has widely been acknowledged as one of the supreme achievements in the history of science.

The conference was attended by 136 scientists from 22 countries. The scientific program included two plenary lectures, 16 invited reviews, 88 contributed oral talks, and 70 poster presentations. The program and the abstracts of conference presentations are available at the conference web site <http://www.els-xv-2015.net/home.html>.

Following the well-established ELS practice and with Elsevier’s encouragement, we solicited full-size papers for a topical issue of the *Journal of Quantitative Spectroscopy and Radiative Transfer (JQSRT)*. The result of this collective effort is now in the reader’s hands. As always, every invited review and regular paper included in this topical issue has undergone the same rigorous peer review process as any other manuscript published in the *JQSRT*.

1. 2015 Van de Hulst Award

An essential part of the ELS-XV agenda was the presentation of the third Hendrik C. van de Hulst Award. This

major distinction is granted by Elsevier for landmark research contributions in the field of Electromagnetic Scattering and is administered by the *JQSRT* via a van de Hulst Award Committee appointed by Elsevier. The 2015 van de Hulst Award Committee was chaired by Dr. Gordon Videen of the US Army Research Laboratory and was composed of 20 distinguished world-renowned experts.

Voting for the 2015 van de Hulst Award turned out to be quite challenging given an exceptionally strong group of nominees and ended in an exact tie between the two top candidates. With Elsevier’s blessing, it was decided to present the award to both frontrunners “in recognition of eminence in science and for landmark contributions to electromagnetic scattering by particles and its applications.” As a result, the 2015 van de Hulst Award was shared by Professor George W. Kattawar of Texas A&M University, USA and Professor Daniel W. Mackowski of Auburn University, USA (Fig. 2). An integral part of the official award ceremony at the ELS-XV was traditional van de Hulst Lectures given by George and Daniel on June 25.

2. 2014 and 2015 Waterman and Goody Awards

The prestigious Peter C. Waterman Award is presented annually to exceptional early-career scientists in the category of Electromagnetic Scattering. In 2014, Elsevier decided to supplement this award by the annual Richard M. Goody Award in the category of Atmospheric Radiation & Remote Sensing. Both awards are administered by *JQSRT* via an expert committee appointed by Elsevier.

The 2014 and 2015 Waterman awards were presented, respectively, to Dr. Svend-Age Biehs, Senior Researcher at Oldenburg University, Germany and Dr. Aristi Christofi, Postdoctoral Fellow at the Institute of Nanoscience and Nanotechnology of the National Center for Scientific Research, Greece.

The inaugural 2014 Goody Award was presented to Dr. Vijay Natraj, Senior Scientist at the NASA Jet Propulsion Laboratory in Pasadena, USA. The subsequent 2015 Goody Award was presented to Dr. Lei Bi, Assistant Research



Fig. 1. Participants of the ELS-XV.



Fig. 2. Celebration of the recipients of the 2015 van de Hulst Award and 2014–2015 Waterman and Goody awards on top of Leipzig's Panorama Tower. From left to right: Aristi Christofi, Vijay Natraj, Svend-Age Biehs, George Kattawar, Michael Mishchenko, Lei Bi, Andreas Macke, Daniel Mackowski, José Stoop, and M. Pinar Mengüç.

Scientist at the Department of Atmospheric Sciences, Texas A&M University, USA.

3. Conveners

Andreas Macke, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

Michael Mishchenko, *NASA Goddard Institute for Space Studies, New York, USA*

4. Scientific Organizing Committee

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Jay D. Eversole, *Naval Research Laboratory, Washington, DC, USA*

James Hough, *Astronomy Research Centre, University of Hertfordshire, UK*

Joop Hovenier, *University of Amsterdam, Amsterdam, Netherlands*

Nikolai Khlebtsov, *Russian Academy of Sciences, Saratov, Russia*

Ludmilla Kolokolova, *University of Maryland, College Park, MD, USA*

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M. Pinar Mengüç, *Ozyegin University, Istanbul, Turkey*

Michael Mishchenko (co-chair), *NASA Goddard Institute for Space Studies, New York, USA*

Karri Muinonen, *Observatory, Helsinki, Finland*

Thomas Trautmann, *German Aerospace Centre, Oberpfaffenhofen, Wessling, Germany*

Michael Quinten, *FRT GmbH, Bergisch Gladbach, Germany*

Rodolphe Vaillon, *Centre de Thermique de Lyon, Lyon, France*

Gorden Videen, *US Army Research Laboratory, Adelphi, MD, USA*

Ping Yang, *Texas A&M University, College Station, TX, USA*

5. Local Organizing Committee

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Beate Richter (secretary), *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

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Ulla Wandinger, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

Manfred Wendisch, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

Thomas Wriedt, *University of Bremen, Bremen, Germany*

6. 2015 Van de Hulst Award Committee

Adrian Doicu, *German Aerospace Centre, Oberpfaffenhofen, Wessling, Germany*

Jay D. Eversole, *Naval Research Laboratory, Washington, DC, USA*

Francisco González, *University of Cantabria, Santander, Spain*

James Hough, *Astronomy Research Centre, University of Hertfordshire, UK*

Joop W. Hovenier, *University of Amsterdam, Amsterdam, The Netherlands*

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Nikolai Khlebtsov, *Russian Academy of Sciences, Saratov, Russia*

Eric C. Le Ru, *Victoria University of Wellington, Wellington, New Zealand*

Andreas Macke, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

Philip L. Marston, *Washington State University, Pullman, WA, USA*

Paul Martin, *Colorado School of Mines, Golden, CO, USA*

M. Pinar Mengüç, *Ozyegin University, Istanbul, Turkey*

Michael Mishchenko, *NASA Goddard Institute for Space Studies, New York, USA*

Karri Muinonen, *Observatory, Helsinki, Finland*

Olga Muñoz, *Instituto de Astrofísica de Andalucía, Granada, Spain*

Fabrice R. A. Onofri, *Aix-Marseille Université, CNRS, Marseille, France*

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Gorden Videen (Chair), *US Army Research Laboratory, Adelphi, MD, USA*

Thomas Wriedt, *University of Bremen, Bremen, Germany*

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Evgenij Zubko, *Kharkov National University, Kharkov, Ukraine*

7. 2014–2015 Waterman and Goody Award Committee

Oleg Dubovik, *CNRS/University of Lille, Lille, France*

George W. Kattawar, *Texas A&M University, College Station, TX, USA*

Andreas Macke, *Leibniz Institute for Tropospheric Research, Leipzig, Germany*

Daniel W. Mackowski, *Auburn University, AL, USA*

M. Pinar Mengüç (co-chair), *Ozyegin University, Istanbul, Turkey*

Michael Mishchenko (co-chair), *Goddard Institute for Space Studies, New York, NY, USA*

Hajime Okamoto, *Kyushu University, Kasuga, Fukuoka, Japan*

José Stoop (JQSRT Publisher), *Elsevier, Amsterdam, The Netherlands*

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Andreas Macke

*Leibniz Institute for Tropospheric Research, Permoserstraße
15, 04318 Leipzig, Germany*

E-mail address: macke@tropos.de

Michael I. Mishchenko

*NASA Goddard Institute for Space Studies, 2880 Broadway,
New York, NY 10025, USA*

E-mail address: michael.i.mishchenko@nasa.gov

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